SW Region, Area 2

Integrated Roadside Vegetation Management Plan

September 2007 - Draft

Washington State Department of Transportation
Maintenance and Operations Division

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Summary

This plan explains the Washington State Department of Transportation's (WSDOT) policy and practice for maintenance of roadside vegetation for Maintenance Area 2 within the agency's Southwest Region. This area manages vegetation within approximately 258 miles of state highway corridor throughout Lewis County. In addition to the Interstate 5 corridor, the area maintains US 12 over White Pass, and State Routes (SR) 122, 505, 506, 508, and portions of SR 6 and 7. A map of the area is included as **Figure 1** on the following page.

The primary objectives in maintenance of roadside vegetation within the area are in relation to safety of the highway users, preservation of the highway infrastructure, and control of legally designated noxious weeds where they occur on the right of way. Other considerations include protection and preservation of natural environment, preserving and enhancing the natural scenic quality of the roadside, and being a good neighbor to the many adjoining property owners. In all cases, roadside vegetation maintenance activities are planned and conducted in a way that discourages or eliminates unwanted vegetation and promotes desirable vegetation. This is the basic premise of Integrated Vegetation Management (IVM) and the foundation of the program.

This document and associated information management tools serve as the primary reference for maintenance of roadside vegetation in the area. Included is detailed information on policies and locations for planned routine maintenance practices, reoccurring weed infestations, sensitive areas, and other areas with special management considerations. Also included are guidelines and prescriptions for best management practices in dealing with roadside vegetation problems and opportunities. In effect, this plan supports WSDOT's compliance with state law (RCW 17.15) by implementing the principles of Integrated Pest Management for the management of roadside vegetation. It also supports WSDOT's long-range goals for the management of roadsides to:

- Create naturally stable, sustainable plant communities
- Improve effectiveness and efficiency in the control of weeds and unwanted trees and brush
- Reduce maintenance cost and herbicide use over time

This plan is organized around the major categories of roadside vegetation maintenance work. The major categories include: Zone 1 (or pavement edge maintenance), Routine Mowing, Noxious Weed Control, Nuisance Weed Control, Tree and Brush Control, and Special Maintenance Areas.

The management of roadside vegetation is a dynamic process and it is intended that this plan be continuously adapted over time based on input from a variety of sources. An integral component of the process is a database for recording IVM treatments for specific vegetation controls and locations, and to record information on follow up evaluation on these treatments. Annual area meetings will be held to discuss what is learned each year and refine the plan over time.

WSDOT is also requesting that local public and private entities with an interest in weed control and roadside vegetation management provide input on the plan and cooperate in efforts where appropriate. Additional copies of the draft plan are available online: www.wsdot.wa.gov/maintenance/vegetation/mgmt_plans.htm, hard copies can also be provided upon request. Please contact Paul Simonsen or Ray Willard at the numbers listed below for questions or comments:

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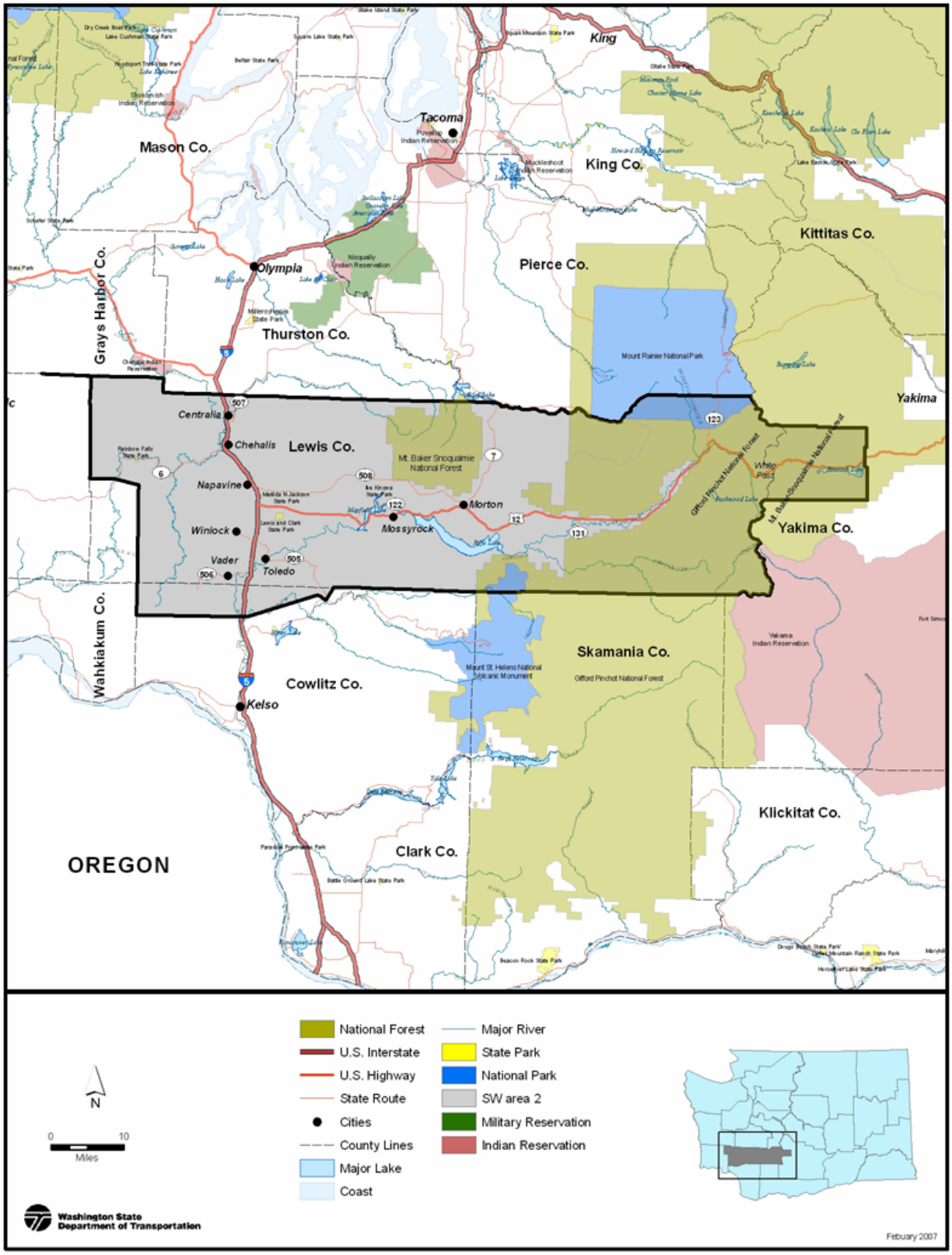


Southwest Region, Area 2 Map
Figure 1

Roadside Management Considerations

The primary objectives for maintenance of roadside vegetation are to provide for safe highway operation and to comply with legal regulations for control of noxious weeds and protection of the environment. Overall WSDOT maintenance policy and procedures are defined in Chapter 6 of the WSDOT Maintenance Manual (M51-01, March 2002)
www.wsdot.wa.gov/fasc/EngineeringPublications/Manuals/MaintenanceManual.pdf

Visual Quality
It is also important to maintain appropriate visual standards in the appearance of the roadside. All maintenance activities should be conducted in a way that minimizes visual impacts such as wide spread "brown-out" from herbicides or shattered limbs from side trimming. Roadsides should look as natural as possible throughout the year. Appropriate visual quality for roadsides throughout the state is defined in the WSDOT Roadside Classification Plan (June 1996)
www.wsdot.wa.gov/fasc/EngineeringPublications/Manuals/RCP.pdf

Operational Zones
WSDOT roadsides are divided into several zones for the purposes of assigning management objectives, maintenance needs, and thresholds for triggering vegetation maintenance actions. Noxious weed species designated for control by state and county law are controlled throughout all zones. Not all management zones occur along all state highways. In some cases the narrow width of the right-of-way or adjoining land-use, limits the operational zones to Zone 1 and/or a narrow Zone 2 only. Roadside vegetation management zones are illustrated in **Figure 2** below and defined as follows:

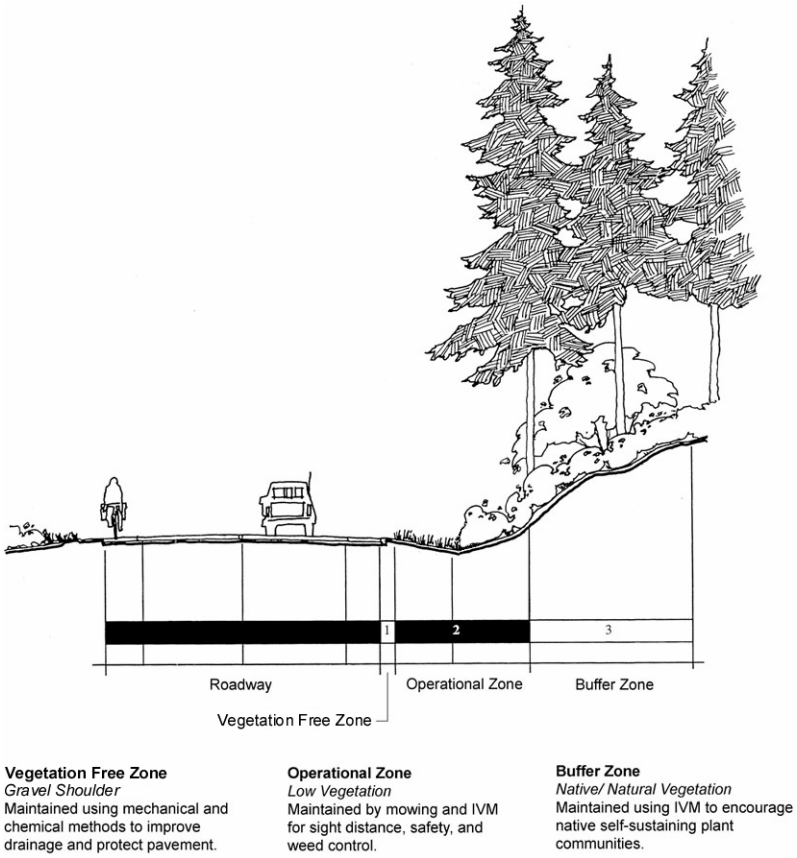
> **Zone 1** – A vegetation free gravel shoulder, where needed, is maintained as a one to three-foot wide strip to provide for key maintenance, operational, safety, and pavement and guardrail preservation needs. Zone 1 is typically maintained with an annual application of herbicides.
>
> **Zone 2** – The operational zone extends from the edge of Zone 1 or the pavement edge (if Zone 1 is not present) to a width necessary to provide for safe errant vehicular recovery, maintain sight distance at corners and intersections, and provide for other operational, safety, and environmental functions. Zone 2 is typically maintained by mowing a single pass adjacent to the pavement and through selective removal of unwanted trees and brush beyond the mowing strip.
>
> **Zone 3** – In areas with sufficient right-of-way width, a buffer or transition zone extends from Zone 2 to the right-of-way line to provide a buffer or transitional area between the highway facility and adjacent land uses. This area is maintained selectively, and to the greatest degree possible as a self-sustaining plant community, to minimize erosion as well as the growth of weeds and undesirable trees and brush.

Roadside Maintenance Activities
All roadside maintenance activities are to be planned and conducted in a way that discourages or eliminates unwanted vegetation and promotes desirable vegetation. This is the basic premise of Integrated Vegetation Management (IVM). In every case it is essential that the results of maintenance activities are evaluated and adjusted as necessary to maximize efficiency and effectiveness. However, in some cases maintenance activities are conducted routinely on an annual basis, such as maintenance of Zone 1 and routine mowing where required.

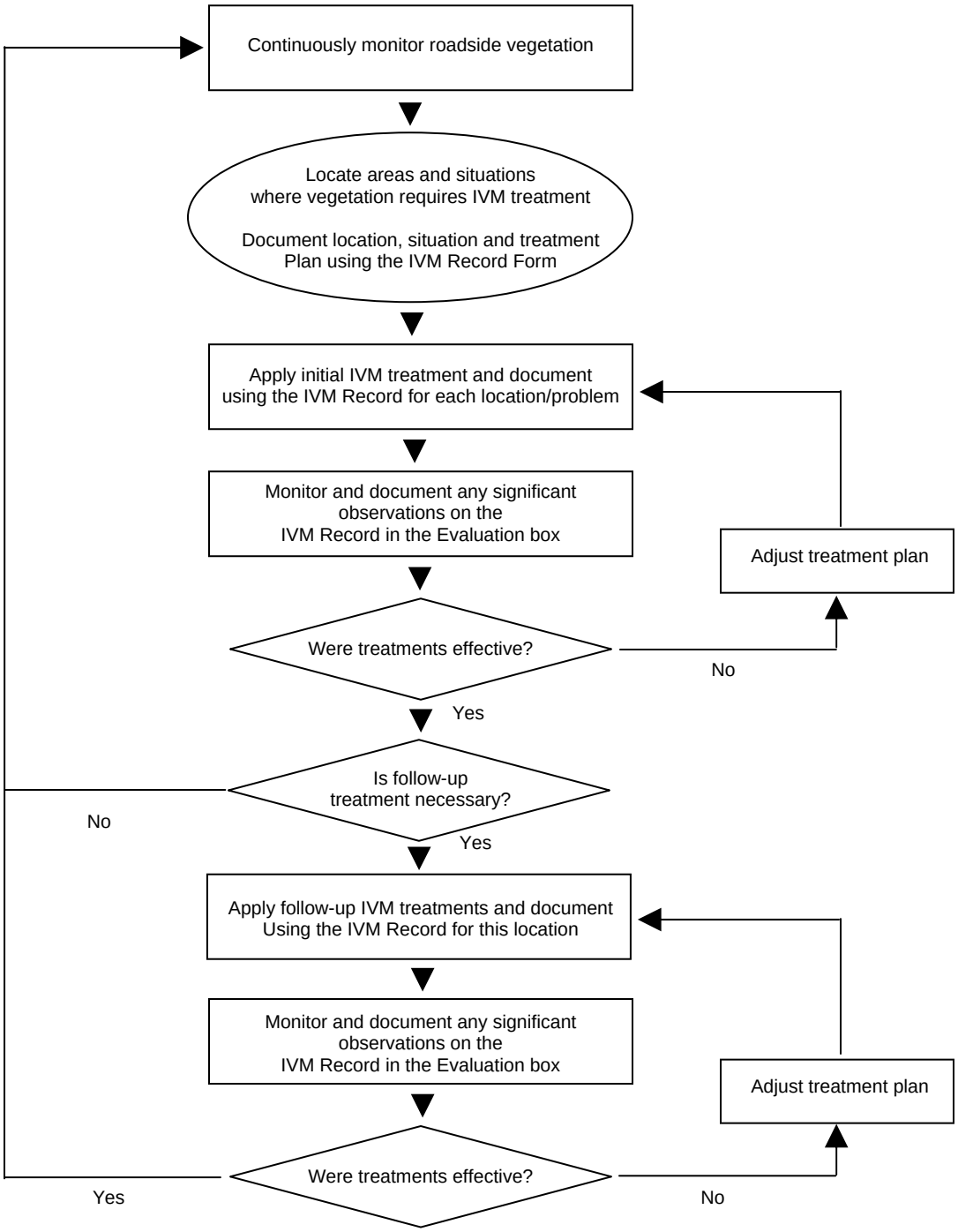
> **Routine Maintenance Activities** – When vegetation maintenance activities are required to keep the area of roadside being treated in an annually controlled condition, activities are considered routine. This is more critical for areas of vegetated roadside near the travel lanes, edge of pavement, and around guardrails. This plan provides prescriptions and gives locations for routine maintenance activities including maintenance of Zone 1 and annual mowing.

Integrated Vegetation Management Activities – Although all activities are to be planned and conducted in accordance with the principles of IVM, many vegetation maintenance activities are intended to target a specific type or types of unwanted plants. By carefully planning and carrying out these target specific activities it is possible over time to establish desirable vegetation, which will prevent the re-infestation of unwanted plants and reduce the need for maintenance over time. The process for determining and carrying out IVM actions is illustrated in **Figure 3** on the following page. This plan provides information, locations, and gives prescriptions for selective control of weeds and other unwanted vegetation and the promotion and establishment of desirable vegetation. Further information and guidance on the application of IVM is available in the document Integrated Vegetation Management for Roadsides (WSDOT, July 1997) www.wsdot.wa.gov/maintenance/pdf/IVM.pdf

Special Maintenance Areas – In some locations there are unique situations that require special consideration in determining appropriate vegetation maintenance actions. Examples of these are: environmentally sensitive areas, areas with special neighbor concerns, areas where a higher level of maintenance is expected such as gateway interchanges or formally landscaped areas, or along highways that cross tribal or federal lands. This plan provides information and guidance on the locations and unique requirements or restrictions on maintenance activities in all of these situations throughout the area.



Typical Roadside Vegetation Management Zones
Figure 2



The IVM Decision-Making Process
Figure 3

Area IVM Goals

The purpose of this section is to identify short and long term goals for roadside vegetation management in the SW Region, Area 2. These goals are intended to help direct decisions that effect roadside maintenance and/or design/construction. These goals will be updated and evaluated on a yearly basis as part of the area's annual winter planning meetings.

Long Term Goals (2007 – 2012)
Long term goals are set to be achievable within 5 years. These goals are broad-scale in nature and may apply to maintenance operations and/or roadside condition.

- Focus on training all employees on IVM, recognizing and caring for beneficial plants, and proper techniques for vegetation maintenance.
- Work with Gifford Pinchot National Forest to reach agreement for use of herbicides

Short Term Goals (2007 – 2009)
Short term goals are set to be achievable within 1 to 3 years. These goals are more specific in nature and are established with specific measures that can be documented and reported.

- Treat nuisance weeds and promote existing desirable grasses on shoulders where Zone 1 has been eliminated throughout the area.
- Control Scotch broom along SR12 at the eastern edge of infestation, approximately MP 130 to 135.
- Eradicate knotweed infestations along I-5 at MP 82.5 NB, 78.46 SB, and 52.65 NB
- Eradicate knotweed infestations along SR7 at MP 1, 4, 9, 10, 11, 12, and 15

1. ROUTINE MAINTENANCE ACTIVITIES

Roadside maintenance activities are considered routine when regular periodic treatment is required to keep vegetative growth from interfering with highway operational and maintenance objectives. Typical routine maintenance activities are maintenance of Zone 1 and certain types of mowing and trimming.

1.1. Routine Shoulder Maintenance (Zone 1)

WSDOT is currently re-evaluating its policy for maintenance of Zone 1. Past policy and practice will be refined over the coming years in response to findings from study of long-term benefit/cost resulting from alternative treatments. For the 2006 growing season, vegetation at the edge of pavement will be managed as follows on roadsides in this maintenance area:

1.1.1. Policy and Practice

- Zone 1 is maintained with the annual application of herbicides only under guardrail installations and other select areas where it is impractical to mow shoulders.
- Where maintained, Zone 1 is 3' band width or less.

1.1.2 Methods

- Herbicides being applied to Zone 1 include a non-selective, post emergent product (glyphosate) mixed with a non-selective, pre-emergent products (sulfometuron-methyl and chlorsufuron, trade name Landmark).
- Zone 1 treatments will be applied in May, depending on rainfall and plant growth.
- Pavement edges will be monitored for surface drainage problems resulting from sod build-up and will be graded in locations as necessary to allow for hydraulic flow of storm water off the roadway surface.
- See **Appendix A, Routine Maintenance Prescriptions, Zone 1 Maintenance**

1.1.3 Locations

- Areas where Zone 1 is maintained are shown in **Appendix B, Zone 1 Map**

1.2. Routine Mowing/Trimming (Zone 2)

1.2.1. Policy and Practice

- Routine annual mowing of roadside grass stands occurs throughout the area in at least one pass, once per year immediately adjacent to the edge of pavement.
- Trimming is distinguished from mowing because it consists of cutting back encroaching limbs and/or hedging shrubs or woody vegetation. Trimming occurs annually as well but only in locations as needed to preserve the safe operation of the highway.
- Additional annual mowing width or frequency may also be conducted as needed for select locations on secondary highways to preserve site distance at curves, intersections and any other highway entry points.
- In designated areas on Interstate 5 and SR12, mowing widths may extend beyond one mower pass.

- In focus areas such as interchanges and areas adjacent to safety rest areas mowing patterns and frequencies are adjusted to local situations as described in **Section 3**.
- In all other areas mowing is only used as part of IVM treatments for weed and brush control as described below in **Section 2**.
- Other areas that may be routinely mowed include grass areas in park and ride lots, narrow grass strips along highway infrastructures, and fence-lines adjacent to neighboring properties as deemed necessary by the Area Superintendent.

1.2.2. Methods

- On I-5 and SR12, routine annual mowing areas are designated as either single pass or multiple pass.
- Single pass mowing consists of one pass up to the maximum width of mowing equipment (25' max.) but may be as narrow as 6' depending on mowing equipment and the presence of existing visual lines such as ditches. When ditch lines are present, single mowing passes shall extend to the bottom of the ditch line whenever possible.
- In areas designated as multiple pass, roadsides are mowed out from edge of pavement to the right of way line, the edge of shrub or tree lines, or across the entire median widths depending on the location.
- See **Appendix A, Routine Maintenance Prescriptions, Zone 2 Maintenance**

1.2.3. Locations

- **Appendix C, Routine Mowing Map** shows locations where routine annual mowing occurs as one pass and as multiple passes. **Appendix C, SW Region, Area 2 Limited Access Mowing Plan** describes mowing priorities, timing and limits on the I-5 and SR12 corridors.

1.3. Hazard Tree Removal

1.3.1. Policy and Practice

- Hazard tree removal is considered a routine maintenance activity because maintenance is constantly on the look out for any trees that pose an imminent threat to the highway or traffic, and whenever hazard trees are identified they are routinely removed as soon as possible.
- Hazard trees may be dead, leaning, or structurally unsound. Best horticultural judgment will be used in evaluating trees that appear diseased or structurally unsound or are believed to pose a long-term threat to determine the best course of action.
- Another consideration in removal of trees is the contribution to shading in areas prone to frost and ice formation on the highway surface. When such areas are identified, the surrounding canopy may be thinned through selective removal of large trees on the right of way.

1.3.2. Methods

- Hazard trees are removed in such a manner to minimize damage and impact to the highway structure and other healthy trees and under-story vegetation.

2. INTEGRATED VEGETATION MANAGEMENT ACTIVITIES

For all vegetation management needs not addressed through routine maintenance as described above, activities are planned and carried out using the principles of Integrated Vegetation Management (IVM) and the decision making process diagrammed on Page 5 in **Figure 3**. IVM is a coordinated decision making process that uses the most appropriate vegetation management methods and strategy, along with a monitoring and evaluation system, to achieve long term roadside maintenance goals and objectives in an environmentally and economically sound manner. The goal in utilizing the IVM approach is the effective control of unwanted vegetation and the establishment of stable, low maintenance native or naturalized plant communities on the roadside that are compatible with:

- Highway maintenance and safety objectives
- Preservation of environmental quality
- Weed control requirements
- The concern's of WSDOT's customers and neighbors.

Long term, the use of the IVM approach can reduce the intensity and cost of maintenance, as well as minimizing the need to use herbicides.

2.1. Integrated Vegetation Management Planning and Tracking Database

2.1.1. Policy and Practice

- An Integrated Vegetation Management Records database is available for use. This database is accessed through the same WSDOT network application as the Pesticide Application Records database.
- Any activities focused on treatment of a specific location and species infestation, or focused on treatment of any types of unwanted vegetation throughout the area will be documented with an initial IVM record outlining the long-term treatment plan. These same records will be updated over time whenever planned treatments are carried out, or when observations are made as to the success or failure of past treatments.
- Treatment records may be printed out and inserted into **Appendix F**.

2.2. Noxious Weed Control

2.2.1. Policy and Practice

- Noxious weed control is a high priority for WSDOT because of state law requiring control of designated species. Transportation rights of way are high priority locations for control of noxious weed species within the state because they cross and link so many adjacent properties and land uses.
- Whenever possible designated noxious weed species and infestations locations will be documented and treated following plans as defined by IVM record forms in the database.
- Washington State Law classifies noxious weeds in three classes: A, B, and C. All Class A species are required control wherever they occur statewide. The law allows for individual county weed boards to designate individual Class B and C weeds for control within the counties depending on how widespread and potentially harmful they are at the local level.

- For the purposes of this plan, noxious weeds are defined as species within any class designated or prioritized by the weed boards for control on state highway rights of way within the counties.
- For SW Region, Area 2 the following weeds designated for control are known to exist on state highway rights of way in Lewis County. It is assumed that the same list will be applied to the short sections of highway within the area extending into Cowlitz and Yakima Counties.

Class A
Class A noxious weeds are non-native species with a limited distribution in the state. No Class A weeds are known to exist on WSDOT rights of way in this area.

Class B
Class B weeds are more widespread than Class A, with control mandated by law only if infestations are generally limited and the species are designated within the individual counties by the County Noxious Weed Control Boards. The following designated species are known to exist on WSDOT right of way:

Common Name/Botanical Name
Knotweed sp./Polygonum sp.
Ragwort tansy/Senecio jacobaea
Knapweed sp./centauria sp.
Scotch broom/Cytisus scoparious (only eastern SR12 and 123)

Class C
Class C noxious weeds are widely established throughout Washington or may impact the agricultural industry. The County Noxious Weed Control Boards also have the power to designate Class C species for control. The following Class C noxious weeds are known to exist on state right of way in SW Region, Area 2:

Common Name/Botanical Name
Butterfly bush/Buddleia davidii
Poison hemlock/Conium maculatum
Hairy willow herb/Epilobium hirsutum

2.2.2. Methods

- Because noxious weed species are often difficult to control, herbicides treatments are often the primary, initial means of control.
- If infestations are limited to a few plants, hand pulling is also effective when the entire root system is also removed. Maintenance employees are encouraged to be aware of and look for new noxious weed occurrences, and to stop and pull these plants whenever possible.
- In conjunction with weed control treatments, a variety of other measures may be taken to promote natural vegetative competition through seeding, planting, and soil enhancement. The IVM Record and database are essential to the execution and success of these control measures.
- For recommended treatments specific to noxious weed species, see **Appendix A, IVM Prescriptions, Noxious Weed Control**

2.2.3. Locations

- **Appendix D, Noxious Weed Location Map** shows locations where reoccurring infestations of noxious species are known to exist in SW Region, Area 2.

2.3. Nuisance Weed Control

2.3.1. Policy and Practice

- For the purposes of this plan, nuisance weed species are defined as species listed as Class B and C weeds on the state noxious weed lists, but not required for control within individual counties.
- Nuisance weed control, while not required by state law, provides many positive benefits to the overall condition of the roadside, enhances ecological function by maintaining and enhancing native plant communities, reduces the potential for continuing spread of weed infestations, and enhances visual quality.
- Nuisance weed species will be controlled when time and budget allows.
- Priority will be given to locations with the highest chance for success including relatively new infestations and where there is potential for infestations to spread to un-infested areas of the right of way or to un-infested neighboring properties.
- Species designated as nuisance weeds in SW Region, Area 2 that are known to exist on the highway right of way include:

Common Name/Botanical Name
St. Johnswort/Hypericum perforatum
Sulfur cinquefoil/Potentilla recta
Common tansy/Tanacetum vulgare
Bull thistle/Cirsium vulgare
Canada thistle/Cirsium arvense
Scot's broom/Cytisus scoparius
Wild carrot/Daucus carota
Common Mullein/Verbascum thapsus
Himalayan blackberry/Rubus discolor

2.3.2. Methods

- Control measures for nuisance weed are dependent on the type of plant.
- Woody species such as Scotch broom and Himalayan blackberry are most effectively treated with a combination of cutting, herbicide treatments and encouragement of native vegetation.
- Perennial species such as Canada thistle are most effective controlled by succeeding years of properly timed herbicide applications.
- Annual or biennial species such as bull thistle and common tansy may also be effectively controlled with herbicide applications when plants are in the rosette stage in spring, or by hand pulling prior to seed set.
- See **Appendix A, IVM Prescriptions, Nuisance Weed Control**.

2.4. Tree and Brush Control

2.4.1. Policy and Practice

- Trees and brush are controlled for safety reasons including preservation of sight distance at curves and intersections, and for visibility of signs, and preventing trees with large trunk diameter from growing too close to traffic lanes.
- Native large shrub and small tree species should be allowed to grow and mature in Zone 2 and selectively trimmed if they begin to encroach on site distance or other traffic operational requirements.
- Large coniferous or hardwood deciduous tree species such as Douglas fir, bigleaf maple, alder, or cottonwood left to grow in Zone 2 and in some cases parts of Zone 3, can reach substantial size over a relatively short period of time and should be removed when young.
- Any tree with a trunk diameter of 4" or greater is considered a hazard for errant vehicles in Zone 2 and should be removed. This zone is also referred to as the Design Clear Zone and is typically maintained to a width of 30' from the traffic lane edge. Actual minimum widths are determined by roadway alignment, traffic speed and volume, and cross-section of the roadside, as specified in the WSDOT Design Manual, Chapter 700.04. *www.wsdot.wa.gov/fasc/EngineeringPublications/Manuals/DesignManual.pdf*

2.4.2. Methods

- Removal of undesirable tree and brush species is typically accomplished by hand cutting, hand pulling, properly timed selective mowing, properly timed herbicide applications, or combinations thereof.
- In some locations it is most effective to mow back the majority of the existing vegetation and then selectively treat undesirable re-growth with herbicides in succeeding years, allowing desirable vegetation to grow up around and form a competitive cover.
- In some cases when tree and brush species are cut by hand, the debris can be fed through a chipper and placed back on the roadside in the form of mulch for soil enhancement and weed prevention.
- Timing of activities has a significant effect on how the vegetation grows back. Herbicide applications made by hand, directly to the cut surfaces of undesirable plants may be used to reduce or eliminate grow back.
- Chemical control methods will not be used on conifers greater than 2 feet in height and/or large dense patches of young trees, to avoid unnecessary negative visual impacts from "brown-out".
- Chemical control methods will not be used on deciduous plants until after the first of September, except for as stump treatments in conjunction with mechanical cutting to eliminate grow-back.
- When possible, safe and practical, seedling of desirable trees may be dug or pulled by hand and transplanted to areas where there growth will be beneficial and appropriate. Agreements may be signed to allow private citizens to collect seedlings for use as transplants.
- See **Appendix A, IVM Prescriptions, Tree and Brush Control**.

3. SPECIAL MAINTENANCE AREAS

Special Maintenance Areas are any locations with unique maintenance requirements or special considerations for roadside management. These areas may include interchanges, community entrances or enhancement areas, areas maintained by cities, bicycle paths, storm water retention ponds, state park land, wellheads, environmentally sensitive areas, school zones and roadsides adjacent to individual properties with current or annual no-spray agreements.

3.1. Interchanges/Intersections

3.1.1. Policy and Practice

- Interchange areas are sometimes developed to a greater level than general roadside areas to include storm water management facilities, pedestrian areas, and permanent vegetation designed for screening, and visual enhancements for community entrances.

3.1.2. Locations

- Interchanges and intersections with unique maintenance considerations are listed in **Appendix E**, along with notes describing practices for each location.

3.2. City Maintenance Areas

3.2.1. Policy and Practice

- In most cases where non-limited access highways exist within city limits, the roadside (all area outside the highway pavement and drainage systems) are maintained by the local city government.

3.2.2. Locations

- Areas where roadsides are maintenance by cities are listed by route and begin and end milepost in **Appendix E**.

3.3. Herbicide Sensitive Areas

3.3.1. Policy and Practice

- In some situations herbicide use is limited or restricted because of legal requirements, neighbor concerns, or WSDOT imposed environmental safety precautions.
- In these locations, vegetation must be managed without the use of herbicides or with only a limited palette of herbicide types.

3.3.2. Locations

- Herbicide sensitive areas and reason/type of limitations on herbicide use are listed by route and begin and end milepost in **Appendix E**.

3.4. Adopt-a-Highway and Neighbor Maintained Agreements

3.4.1. Policy and Practice

- In some locations WSDOT has signed agreements with private citizens or neighboring businesses for maintenance of roadside vegetation.

3.4.2. Locations

- Currently there are no locations with neighbor maintained agreements in SW Region, Area 2.

3.5. Storm Water Management Facilities

3.5.1. Policy and Practice

- Storm water management facilities include bio-filtration swales, retention ponds and infiltration ponds.
- Storm water management facilities are managed for noxious and nuisance weeds, and hazard trees following the same guidelines mentioned in previous sections. The primary objectives with regard vegetation management within these facilities are maintenance of the functionality in terms of the designed volume of retention and water flow, and the maintenance of the surrounding fence
- Trees and brush should be cleared along both sides of the perimeter fencing for a width of approximately 8 feet as needed.
- Inlets and outfalls should be kept clear of vegetation and debris.

3.5.2. Locations

- Stormwater management facilities are listed by route and milepost in **Appendix E**.

3.6. Wetland Mitigation Sites

3.6.1. Policy and Practice

- Wetland mitigation sites are carefully monitored through WSDOT's Environmental Services Office for up to 10 years following their creation to ensure compliance with environmental regulation.
- In most cases vegetation in these sites is planted and established through the construction and long-term monitoring process so that once they are turned over to maintenance, actions are not required unless noxious weeds or hazardous trees become an issue.
- In cases where mitigation sites have fulfilled their original permit requirements and have been turned back to maintenance, sites should be inspected on an annual basis to determine if any repairs or weed control is necessary.

3.6.2. Locations

- All wetland mitigation sites within SW Region, Area 2 are listed by the nearest route and milepost in **Appendix E**.

3.7. IVM Treatment Sites

3.7.1. Policy and Practice

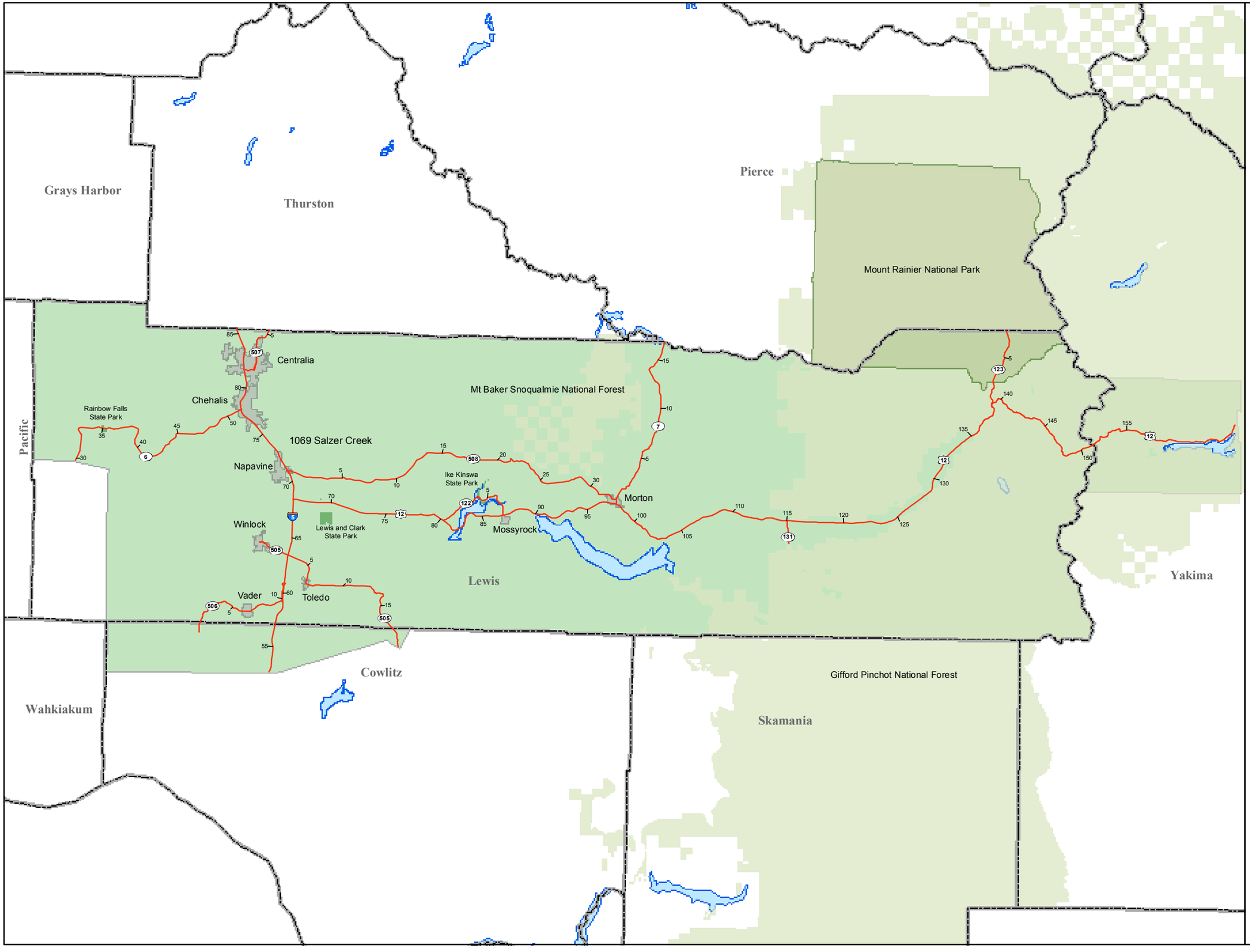
- As discussed in **Section 2.1**, selected sites are designated for planning, carrying out and monitoring multi-year IVM treatments for control of weeds or other unwanted vegetation.
- IVM treatment sites are documented with an initial record in the IVM Treatment Database, to identify the problem to be addressed, location(s), management goals, and integrated treatment plan.
- Records are updated each time a treatment is made, results observed, or when the treatment plan is modified based on observations.

3.7.2. Locations

- All designated IVM treatment sites within SW Region, Area 2 are listed by the route and milepost in **Appendix E**. This list is updated annually as new sites may be added and successfully treated sites removed.

Appendix D:

Southwest Region Area 2
Noxious Weed Location
Map 1 of 1



Legend

- State Route
- 75 Mile Post
- City Limits
- County Boundaries
- National Park
- National Forest
- State Park
- Major Lakes
- SW area 2

0 10
Miles

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Washington State Department of Transportation

June 2007

Table 3.0

Locations are distinguished between the sides of the highway by right shoulder (RS) or left shoulder/median (LS) in relation to either increasing (INC) mile markers or decreasing (DEC) mile markers

Description - Brief explanation of special treatment required

SR	Direction	Shoulder	BEG MP	END MP	Type	Description
005	INC	RS	52.65	53.02	On ramp from Toutle Park Rd.	Mow out quadrants
005	INC	RS	54.34	59.90	Toutle Rest Area	Mow out quadrants
005	INC	RS	57.01	57.90	Exit 57 Jackson Hwy	Mow out quadrants
005	INC	RS	59.27	59.63	Exit 59 Vader/Ryderwood	Mow out quadrants
005	INC	RS	60.69	61.39	Exit 60 Toledo Vader Rd.	Mow out quadrants
005	INC	RS	63.11	63.96	Exit 63 Winlock/Toledo	Mow out quadrants
005	INC	RS	68.12	68.98	Exit 68 Morton/Yakima	Mow out quadrants
005	INC	RS	70.67	71.53	Exit 71 Napavine/Onalaska	Mow out quadrants
005	INC	RS	72.55	73.22	Exit 72 Rush Rd.	Mow out quadrants
005	INC	RS	73.11	73.12	Wetland Mitigation Site	Salzer Creek
005	INC	RS	76.27	77.01	Exit 76 13th St.	Mow out quadrants
005	INC	RS	77.69	78.35	Exit 77 Pe Ell/Raymond	Mow out quadrants
005	INC	RS	78.85	79.50	Exit 79 Chamber Way	Mow out quadrants
005	INC	RS	81.36	82.08	Exit 81 Mellen St.	Mow out quadrants
005	INC	RS	82.45	83.28	Exit 82 Harrison Ave.	Mow out quadrants
005	DEC	RS	52.87	52.65	Exit 52 Toutle Park Rd.	Mow out quadrants
005	DEC	RS	54.93	54.16	Toutle Rest Area	Mow out quadrants
005	DEC	RS	57.67	56.67	Exit 57 Jackson Hwy.	Mow out quadrants
005	DEC	RS	59.61	59.17	Exit 59 Vader/Ryderwood	Mow out quadrants
005	DEC	RS	61.18	60.38	Exit 60 Toledo Vader Rd.	Mow out quadrants
005	DEC	RS	63.71	62.87	Exit 63 Winlock/Toledo	Mow out quadrants
005	DEC	RS	68.80	68.13	Exit 68 Morton/Yakima	Mow out quadrants
005	DEC	RS	71.35	70.83	Exit 71 Napavine/Onalaska	Mow out quadrants
005	DEC	RS	72.99	72.35	Exit 72 Rush Rd.	Mow out quadrants
005	DEC	RS	76.77	76.11	Exit 76 13th St.	Mow out quadrants
005	DEC	RS	78.22	77.52	Exit 77 Pe Ell/Raymond	Mow out quadrants
005	DEC	RS	79.40	78.54	Exit 79 Chamber Way	Mow out quadrants
005	DEC	RS	81.92	81.21	Exit 81 Mellen St.	Mow out quadrants
005	DEC	RS	83.09	82.34	Exit 82 Harrison Ave.	Mow out quadrants
006	Both	RS	42.46	42.47	RR crossing	848565L
006	Both	RS	46.13	46.14	RR crossing	848701J
006	Both	RS	51.33	51.37	City of Chehalis	Maintain by city
007	Both	RS	0.00	0.63	City of Morton	Maintain by city
007	Both	RS	0.58	0.59	RR crossing	397209T
012	Both	RS	86.63	86.95	City of Mossyrock	Maintain by city
012	Both	RS	97.30	97.50	City of Morton	Maintain by city
012	Both	RS	135.15	165.98	National Park	
123	Both	RS	0.00B	7.50	National Park	
505	Both	RS	0.00	1.00	City of Winlock	Maintain by city

Table 3.0

Locations are distinguished between the sides of the highway by right shoulder (RS) or left shoulder/median (LS) in relation to either increasing (INC) mile markers or decreasing (DEC) mile markers

Description - Brief explanation of special treatment required

SR	Direction	Shoulder	BEG MP	END MP	Type	Description
505	Both	RS	0.01	0.02	RR crossing	092493S
505	Both	RS	6.16	6.86	City of Toldeo	Maintain by city
506	Both	RS	6.00	6.74	City of Vader	Maintain by city
506	Both	RS	6.07	6.08	RR crossing	092484T
507	Both	RS	0.00	4.25	City of Centralia	Maintain by city
507	Both	RS	0.47	0.48	RR crossing	396776G
507	Both	RS	2.12	2.13	RR crossing	092547V
507	Both	RS	2.12	2.13	RR crossing	092546N
507	Both	RS	31.79	32.84	City of Morton	Maintain by city
508	Both	RS	31.79	32.84	City of Morton	Maintain by city
507COPEARL	Both	RS	2.26	3.49	City of Centralia	Maintain by city

Washington State Department of Transportation

Integrated Vegetation Management Record

Org Code	County	Date		Vegetation Management Zone(s)
		6/13/2007		☐ Zone 1 ☐ Zone 2 ☐ Zone 3

Area
SR. _____ MP _____ to MP _____

Location

Check Appropriate Boxes: ☐ NB ☐ EB ☐ SB ☐ WB ☐ Roadside ☐ Shoulder ☐ Median ☐ Landscaped Area ☐ Rest Area ☐ Park-n-Ride ☐ Interchange ☐ Bridge ☐ Ramp ☐ Mitigation Site ☐ Stormwater ☐ Yard/Stockpile

Third Party Damage ☐ Yes

Sensitive Sites ☐ Aquatic ☐ Wetlands

Target ☐ Noxious Weeds ☐ Nuisance Weeds ☐ Brush/Trees ☐ Hazard Tree ☐ Other

List Target/Species:

Reason for Action:
☐ Noxious Weeds ☐ Nuisance Weeds ☐ Fire Prevention ☐ Restore Native Veg. ☐ Zone 1 Pilot ☐ Aesthetic
☐ Site Distance ☐ Hazard Vegetation ☐ Customer Request ☐ Enhance Vegetation ☐ Slope Stabilization ☐ Other _____

Long term IVM plan (Describe goals/objectives and a step-by-step approach over time)

Approximate Acres to Accomplish

Activities		Planned date of Treatment	Actual date of Treatment
Manual	☐ Digging ☐ Pulling ☐ Planting ☐ Lopping ☐ Scalping ☐ Other _____		
Mechanical	☐ Aerial Saw Work ☐ Tractor Brush Cutter ☐ Mower/Chain ☐ Manual Brush Cutting ☐ Tractor Mower ☐ Other		
Bio-Control	☐ Insect ☐ Pathogen ☐ Parasite Type/Species _____		
Cultural	☐ Burning ☐ Grading ☐ Seeding ☐ Fertilizing ☐ Grazing ☐ Soil Amendment ☐ Other _____		
Chemical	Record Number		

#1 Evaluation and Date

#2 Evaluation and Date

#3 Evaluation and Date

Washington State Department of Transportation

Pesticide Application

Org. Code	County	Date of Application	Start / Finish	ICP	Stores Issue Ticket Number(s)
		6/13/2007	○ AM ○ PM / ○ AM ○ PM		

Area
SR ☐ MP ☐ to MP ☐ and MP ☐ to MP ☐ and MP ☐ to MP ☐ and MP ☐ to MP

Check Appropriate Boxes:
☐ NB ☐ EB ☐ SB ☐ WB
☐ Roadside ☐ Landscaped Area ☐ Interchange ☐ Yard/Stockpile
☐ Shoulder ☐ Rest Area ☐ Bridge
☐ Median ☐ Park-n-Ride ☐ Ramp
☐ Spot Spray ☐ Blanket Spray
☐ Aquatic ☐ Wetlands

☐ Weeds ☐ Noxious Weeds ☐ Disease
☐ Brush ☐ Insects ☐ Other
Zone 1 ○ yes ○ no
List Pest(s):

Start Weather Conditions
Temperature ☐ (°F / °C) Wind (Direction From) ☐ Wind (Range) ☐ mph(km/h)
○ Sunny ○ Broken ○ Overcast No Rain ○ Light Scattered Showers ○ Hard Showers

Finish Weather Conditions
Temperature ☐ (°F / °C) Wind (Direction From) ☐ Wind (Range) ☐ mph(km/h)
○ Sunny ○ Broken ○ Overcast No Rain ○ Light Scattered Showers ○ Hard Showers

Tank No.	Material Name	Material Type	EPA Reg. No.	Lot Number	Product Per Acre (hectare)	Unit	Total Daily Usage	Unit

Total ☐ **Acres(hectares) Treated at** ☐ **gallons(liters) of spray per acre(hectare).**

Equipment Number	Tank Size 1	2	3	4	5	Calibration Date	Vehicle Speed mph(km/h)	Nozzle Pressure PSI(kPa)	Width of Spray Pattern Feet(meter)
	☐	☐	☐	☐	☐				

☐ Hand/spreader ☐ Backpack
☐ Hand gun ☐ Fixed Nozzle
☐ Boom ☐ Other (Specify)
☐ Tank Mix (Conv.) ☐ Injection ☐ Invert

Operator Name	Operator Pesticide License No.	Operator Signature	Driver Name

Remarks

Buffer Area Driver's Name

Pesticide Sensitivity Registration Applies: ☐ Yes ☐ No

Contact

Division of Emergency Management (1-800-258-5990) Additional Notes

DOT Form 540-506 EF Revised 1/2007 Distribution: O/C Maint. Operator Region File *Send OSC Copy Within 5 Days*

Oz= Ounces Dry Lb= Pound Oz= Ounces Liquid Ga= Gallon Pt= Pint Qt= Quart g= gram kg=kilogram ml=Milliliter L= Liter

Entity	Mailing Address	Contact Person	Title	Phone	E-Mail
City of Centralia	1100 No. Tower Centralia, WA 98531	Jan Stemkoski	City Engineer	(360) 330-7512	jstemkoski@cityofcentralia.com
City of Chehalis	2007 N.E. Kresky Ave. Chehalis, WA 98532	Tim Grochowski	Public Works Director	(360) 748-0238 Fax: (360) 748-0694	jsmith@ci.chehalis.wa.us
City of Napavine	214 NE Second Napavine, WA 98565	Steve Ashley	Public Works Director	(360) 262-9231 Fax: (360) 262-9885	
City of Winlock	323 NE First St Winlock, WA 98596	LeRoy A. Zwiefelhofer	Public Works Superintendent	(360) 785-3811 Fax: (360) 785-4378	wincity@toledotel.com
City of Vader	317 8th St Vader, WA 98593	Guy Chastain	Major	(360) 295-3222 Fax: (360) 295-3012	vader@toledotel.com
City of Toledo	130 N Second St Toledo, WA 98591	Michelle Whitten	City Manager	(360) 864-4564 Fax: (360) 864-4566	cityoftoledo@toledotel.com
City of Mossyrock	231 E State St Mossyrock, WA 98564	James Fike	Major	(360) 983-3300 Fax: (360) 983-8910	mossyrock@lewiscounty.com
City of Morton	250 Main St Morton, WA 98356	Dan Powell	Public Work Superintendent	(360) 496-6881 Fax: (360) 496-6899	
Lewis County	351 NW North St. Chehalis, WA 98532	Bill Wamsley	Noxious Weed Coordinator	(360) 740-1215 Fax: (360) 740-2792	wamsleyb@wsu.edu
Yakima County	1216 E. Race St. Yakima, WA 98901	Dick Jacobson	Noxious Weed Coordinator	(509) 574-2180 Fax: (509) 457-7633	effie.shinn@co.yakima.wa.us
Cowlitz County	207 4th Ave. N. rm #101 Kelso, WA 98626	Kenneth C. Stone	Noxious Weed Coordinator	(360) 577-3030 Fax: (360) 636-0845	stonek@co.cowlitz.wa.us
Gifford Pinchot National Forest	10600 N.E. 51st. Circle Vancouver, WA 98682			(360) 891-5000 Fax: (360) 891-5045	